

THE CLAIMS

What is claimed is:

- 5 1. A tropicalizing agent comprising:
a liquid fat component;
a plurality of gel beads which comprise:
a sugar or polyol, or both, in an amount of about 20 to 50 weight
percent of the gel beads;
10 an emulsifier component to facilitate uniform gel bead size
distribution; and
the remainder being water present in an amount sufficient to ensure
that the sugar or polyol is present in aqueous form,
wherein the emulsifier component is present in an amount sufficient so the gel
15 beads form a water-in-oil emulsion with the liquid fat component, wherein the liquid fat
component is present in an amount sufficient to disperse the gel beads therein and wherein a
majority of the gel beads remain substantially intact to trap the aqueous form therein for at
least about 8 hours after being cooled below about 40°C.
- 20 2. The agent of claim 1, wherein the gel beads further comprise a gelling
component in an amount sufficient to facilitate gelling of the gel beads.
- 25 3. The agent of claim 2, wherein the gelling component is present in an
amount of about 0.2 to 1.2 weight percent of the gel beads and comprises at least two of
kappa-carrageenan, iota-carrageenan, locust bean gum, agar, alginate, milk proteins, or
gelatin.
- 30 4. The agent of claim 1, wherein at least a majority of the gel beads
remain substantially intact for at least about 4 hours after being cooled below about 30°C, and
the tropicalizing agent contains about 20 to 60 weight percent water.
5. The agent of claim 1, wherein the gel beads are at least substantially
spherical.

6. The agent of claim 1, wherein the gel beads have a volume average size of about 20 to 80 microns.

7. The agent of claim 1, wherein the liquid fat component comprises one
5 or more cocoa butter substitutes.

8. A chocolate or analogue thereof comprising the tropicalizing agent of claim 1 in an amount sufficient to increase the structural integrity and shape retention of the chocolate or analogue thereof.
10

9. A chocolate or analogue thereof comprising the tropicalizing agent of claim 1, wherein the gel beads include sugar crystals present in the form of a plurality of rings or chains each having a size in diameter or length of about 50 μm to 500 μm .

10. A process for preparing a tropicalizing agent which comprises:
15 providing a plurality of gel beads comprising one or more sugars or polyols in an amount of about 20 to 50 weight percent of the gel beads, an emulsifier component to facilitate uniform gel bead distribution, and the remainder being water present in an amount sufficient to ensure that the sugar or polyol, or both, is present in aqueous form; and
20 dispersing the gel beads in a liquid fat component present in an amount sufficient to disperse the gel beads therein,
wherein the emulsifier component is present in an amount sufficient so the gel beads form a water-in-oil emulsion with the liquid fat component, wherein the liquid fat component is present in an amount sufficient to disperse the gel beads therein, and wherein a
25 majority of the gel beads remain substantially intact to trap the aqueous form therein for at least about 8 hours after being cooled below about 40°C.

11. The process of claim 10, wherein the providing further comprises a gelling component that comprises at least two of kappa-carrageenan, iota-carrageenan, locust
30 bean gum, agar, alginate, milk proteins, or gelatin.

12. The process of claim 11, wherein at least substantially all of the gel beads remain intact to trap the aqueous form therein for at least about 8 hours after formation

of the tropicalizing agent and the tropicalizing agent contains about 20 to 60 weight percent water.

13. The process of claim 10, wherein the liquid fat component comprises
5 one or more cocoa butter substitutes.

14. The process of claim 11, wherein the gelling component is fully
dissolved to facilitate dispersal of the gel beads within the liquid fat component.

10 15. A process for tropicalizing chocolate or an analogue thereof, which
comprises:
combining a chocolate or chocolate analogue mass with a sufficient amount of
tropicalizing agent to form a tropicalized chocolate mass, with the tropicalizing agent
comprising (a) a plurality of gel beads comprising water in an amount of about 1 to 2 percent
15 by weight of the tropicalized chocolate mass, an emulsifier component to facilitate uniform
gel bead distribution, and one or more sugars or polyols, or both, in an amount of about 20 to
50 weight percent of the gel beads that forms a syrup with the water that is temporarily
retained in the gel beads, and (b) a liquid fat component present in an amount sufficient to
ensure the gel beads are dispersed therein; and

20 initiating release of the syrup of water and sugar or polyol, or both, from the
gel beads so as to increase the structure of the tropicalized chocolate mass, wherein the
amount of tropicalizing agent is sufficient to increase the integrity and shape retention of the
tropicalized chocolate mass compared to a non-tropicalized mass.

25 16. The process of claim 15, wherein the combining comprises at least
substantially uniformly dispersing the tropicalizing agent in the mass.

17. The process of claim 15, wherein the initiating comprises reducing the
temperature of the tropicalized chocolate mass to about -5°C to -15°C.

30 18. The process of claim 15, wherein the chocolate mass is at least
partially tempered before combining the tropicalizing agent therewith.

19. The process of claim 15, wherein the gelling component is present and comprises a mixture of at least two of kappa-carrageenan, iota-carrageenan, locust bean gum, agar, alginate, milk proteins, or gelatin.

5 20. The process of claim 15, wherein the gelling component is provided in an amount of less than about 0.5 weight percent of the tropicalized chocolate mass.

21. The process of claim 15, wherein the sugar or polyol comprises sucrose or sorbitol, or a combination thereof.

10 22. The process of claim 15, wherein the liquid fat component comprises one or more cocoa butter substitutes.

15 23. The process of claim 15, wherein the liquid fat comprises one or more vegetable fats that are the same as a fat used in preparing the chocolate analogue mass so as to increase the compatibility and stability of the tropicalized chocolate mass.